# **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

Search Results - Record(s) 1 through 2 of 2 returned.

1. Document ID: US 20040110150 A1

Using default format because multiple data bases are involved.

L44: Entry 1 of 2

File: PGPB

Jun 10, 2004

RULE-47

PGPUB-DOCUMENT-NUMBER: 20040110150

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040110150 A1

TITLE: Modulation of Ephrin-B2 expression

PUBLICATION-DATE: June 10, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY

Koller, Erich Carlsbad CA US
Dobie, Kenneth W. Del Mar CA US

US-CL-CURRENT: 435/6; 514/44, 536/23.2

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims RMC Draw Des-

2. Document ID: US 20040033971 A1

L44: Entry 2 of 2 File: PGPB Feb 19, 2004

PGPUB-DOCUMENT-NUMBER: 20040033971

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040033971 A1

TITLE: Polypeptides and nucleic acids encoding same

PUBLICATION-DATE: February 19, 2004

INVENTOR-INFORMATION:

STATE COUNTRY RULE-47 NAME CITY US Gangolli, Esha A. CTMadison Branford CTUS Patturajan, Meera Vernet, Corine A.M. US Branford CTMalyankar, Uriel M. Branford CTUS Kekuda, Ramesh Norwalk CTUS Stone, David J. Guilford CTUS Anderson, David Branford CTUS Shimkets, Richard A. Guilford CTUS CT US Burgess, Catherine E. Wethersfield

h e b b g e e e f e c e f b e

## Record List Display

Zerhusen, Bryan D.	Branford	CT	US
Liu, Xiaohong	Branford	CT	US
Spytek, Kimberly A.	New Haven	CT	US
Casman, Stacie J.	North Haven	CT	US
Boldog, Ference L.	North Haven	CT	US
Smithson, Glennda	Guilford	CT	US
Li, Li	Branford	CT	US
Ji, Weizhen	Branford	CT	US
MacDougall, John R.	Hamden	CT	US

 $\text{US-CL-CURRENT: } \underline{514/44}; \ \underline{435/320.1}, \ \underline{435/325}, \ \underline{435/6}, \ \underline{435/7.1}, \ \underline{514/2}, \ \underline{530/387.1}, \ \underline{536/23.1}$ 

#### ABSTRACT:

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies, which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention farther discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full Title Citation From	nt Review Classification	Date Reference	Sequences	Attachments	Claims 100	MC Drawn Desc
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L43 AND Eph	A4	-				2

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# **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

**Search Results -** Record(s) 1 through 6 of 6 returned.

1. Document ID: US 20040126793 A1

Using default format because multiple data bases are involved.

L46: Entry 1 of 6

File: PGPB

Jul 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040126793

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040126793 A1

TITLE: Lectin compositions and methods for modulating an immune response to an

antigen

PUBLICATION-DATE: July 1, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Segal, Andrew H. Boston MA US Young, Elihu Sharon MA US

US-CL-CURRENT: 435/6; 435/320.1, 435/325, 435/419, 435/69.1, 530/370, 530/395,

536/23.5

Full Title Citation Front Review Classification Date Reterence - Attachments Claims KMC Draw Desc

File: PGPB

D 2. Document ID: US 20040072747 A1

Apr 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040072747

PGPUB-FILING-TYPE: new

L46: Entry 2 of 6

DOCUMENT-IDENTIFIER: US 20040072747 A1

TITLE: Novel member of the epha receptor family

PUBLICATION-DATE: April 15, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Hock, Bjoern Maintal DE
Duecker, Klaus Darmstadt DE

US-CL-CURRENT: 514/12; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.5

ABSTRACT:

EphA9 polypeptides and polynucleotides and methods for producing such polypeptides by

е

h eb b g ee ef ec ef b

recombinant techniques are disclosed. Also disclosed are methods for utilizing EphA9 polypeptides and polynucleotides in diagnostic assays.

Full Title Citation Front Review Classification Date	Reference """	Attachments Claims KodC Draw Desc
3. Document ID: US 20040044181 A1		
L46: Entry 3 of 6	File: PGPB	Mar 4, 2004

PGPUB-DOCUMENT-NUMBER: 20040044181

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040044181 A1

TITLE: Novel nucleic acids and polypeptides

PUBLICATION-DATE: March 4, 2004

### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Tang, Y. Tom	San Jose	CA	US	
Liu, Chenghua	San Jose	CA	US	
Asundi, Vinod	Foster City	CA	US	
Wehrman, Tom	Stanford	CA	US	
Ren, Feiyan	Cupertino	CA	US	
Zhou, Ping	Cupertino	CA	US	
Zhao, Qing A.	San Jose	CA	US	
Drmanac, Radoje T.	Palo Alto	CA	US	
Zhang, Jie	Campbell	CA	US	
Xue, Aidong	Sunnyvale	CA	US	
Wang, Jian-Rui	Cupertino	CA	US	
Wang, Dunrui	Poway	CA	US	

US-CL-CURRENT: 530/350; 435/320.1, 435/325, 435/69.1, 536/23.5

#### ABSTRACT:

The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

Full	Title Citation Front Review Classification Date	Reference	Attachments Claims (MMC   Brawn Desi
	4. Document ID: US 20040033971 A1		······································
	Entry 4 of 6	File: PGPB	Feb 19, 2004

PGPUB-DOCUMENT-NUMBER: 20040033971

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040033971 A1

TITLE: Polypeptides and nucleic acids encoding same

PUBLICATION-DATE: February 19, 2004

h eb b g ee ef ec ef b e

CITY	STATE	COUNTRY	RULE-47
Madison	CT	US	
Branford	CT	US	
Branford	CT	US	
Branford	CT	US	
Norwalk	CT	US	
Guilford	CT	US	
Branford	CT	US	
Guilford	CT	US	
Wethersfield	CT	US	
Branford	CT	US	
Branford	CT	US	
New Haven	CT	US	
North Haven	CT	US	
North Haven	CT	US	
	Madison Branford Branford Branford Norwalk Guilford Branford Guilford Wethersfield Branford Branford Norwalk Branford	Madison CT Branford CT Branford CT Branford CT Norwalk CT Guilford CT Branford CT Wethersfield CT Branford CT Branford CT Wethersfield CT Branford CT Now Haven CT North Haven CT	Madison CT US Branford CT US Branford CT US Branford CT US Norwalk CT US Guilford CT US Branford CT US Branford CT US Branford CT US Guilford CT US Wethersfield CT US Branford CT US Branford CT US New Haven CT US North Haven CT US

Guilford

Branford

Branford

Hamden

US-CL-CURRENT: 514/44; 435/320.1, 435/325, 435/6, 435/7.1, 514/2, 530/387.1, 536/23.1

CT

CT

CT

CT

US

US

US

US

#### ABSTRACT:

Li, Li

Ji, Weizhen

Smithson, Glennda

MacDougall, John R.

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies, which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention farther discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full Title Citation Front Review Classificat	ion Date Reference // ////////////////////////////////	stachments   Claims   KWIC   Draw Desc
5. Document ID: US 200302074	47 A1	
L46: Entry 5 of 6	File: PGPB	Nov 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030207447

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030207447 A1

TITLE: Artery- and vein-specific proteins and uses therefor

PUBLICATION-DATE: November 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Hai U.	Pasadena	CA	US	•
Chen, Zhoufeng	Pasadena	CA	US	
Anderson, David J.	Altadena	CA	US	

h eb b g ee ef ec ef b e

US-CL-CURRENT: 435/325; 435/320.1, 435/6, 530/350, 536/23.5

#### ABSTRACT:

Arterial and venous endothelial cells are molecularly distinct from the earliest stages of angiogenesis. This distinction is revealed by expression on arterial cells of a transmembrane ligand, called EphrinB2 whose receptor EphB4 is expressed on venous cells. Targeted disruption of the EphrinB2 gene prevents the remodeling of veins from a capillary plexus into properly branched structures. Moreover, it also disrupts the remodeling of arteries, suggesting that reciprocal interactions between pre-specified arterial and venous endothelial cells are necessary for angiogenesis.

Fuil   Titl	≥ Citation Front	Review   Classification   Date	Reference	Attachments Claims KopiC Draw Desc
		US 20010024650 A1		
L46: Ent	ry 6 of 6		File: PGPB	Sep 27, 2001

PGPUB-DOCUMENT-NUMBER: 20010024650

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010024650 A1

TITLE: Artery - and vein-specific proteins and uses therefor

PUBLICATION-DATE: September 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Hai U.	Pasadena	CA	US	
Chen, Zhoufeng	Pasadena	CA	US	
Anderson, David J.	Altadena	CA	US	

US-CL-CURRENT: 424/185.1; 435/325, 435/6, 435/7.1, 435/7.2, 530/387.1, 536/23.5, 800/13

#### ABSTRACT:

Arterial and venous endothelial cells are molecularly distinct from the earliest stages of angiogenesis. This distinction is revealed by expression on arterial cells of a transmembrane ligand, called EphrinB2 whose receptor EphB4 is expressed on venous cells. Targeted disruption of the EphrinB2 gene prevents the remodeling of veins from a capillary plexus into properly branched structures. Moreover, it also disrupts the remodeling of arteries, suggesting that reciprocal interactions between pre-specified arterial and venous endothelial cells are necessary for angiogenesis.

Full Title Cdation Front Review Classification	n Date Reference	Attachments Claims KMC Draw Desi
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# **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

Search Results - Record(s) 1 through 26 of 26 returned.

1. Document ID: US 20040185548 A1

Using default format because multiple data bases are involved.

L47: Entry 1 of 26

File: PGPB

Sep 23, 2004

PGPUB-DOCUMENT-NUMBER: 20040185548

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040185548 A1

TITLE: Hybrid receptors for efficient assay of modulators of receptor protein-

tyrosine kinases

PUBLICATION-DATE: September 23, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Ji, Qun-Sheng

Babylon

NY

US

US-CL-CURRENT: <u>435/194</u>; <u>514/12</u>

Full Title Citation Front Review	Classification Date Reference Sequences Attachments Claims KMC Draw. Desc				

2. Document ID: US 20040180823 A1

L47: Entry 2 of 26

File: PGPB

Sep 16, 2004

RULE-47

PGPUB-DOCUMENT-NUMBER: 20040180823

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040180823 A1

TITLE: Novel agents that modulate Eph receptor activity

PUBLICATION-DATE: September 16, 2004

INVENTOR-INFORMATION:

NAME

San Diego

CITY

STATE

COUNTRY

e

US

CA

Pasquale, Elena B. Koolpe, Mitchell

San Diego

CA CA

US

Murai, Keith K.

Candiac

US-CL-CURRENT: 514/12; 530/350

ABSTRACT:

Novel agents are described that bind to Eph receptors. Methods of using these agents to modulate the activity of Eph receptors, stimulate apoptosis, and deliver

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therapeutic agents are also described. Methods of screening for agents capable of selectively binding to Eph receptors are also described.

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims Killic Draw Desc

3. Document ID: US 20040151728 A1

L47: Entry 3 of 26

File: PGPB

Aug 5, 2004

PGPUB-DOCUMENT-NUMBER: 20040151728

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040151728 A1

TITLE: Lectin compositions and methods for modulating an immune response to an

antigen

PUBLICATION-DATE: August 5, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Segal, Andrew H.

Boston

MΑ

US

Young, Elihu

Sharon

MA

US

US-CL-CURRENT: 424/184.1; 424/199.1, 424/200.1, 530/395

ABSTRACT:

The present invention provides a fusion polypeptide which can bind to a cell surface binding moiety (e.g., a carbohydrate) and serve as a ligand for a cell surface polypeptide, as well as a vector comprising a nucleic acid encoding for such a fusion polypeptide, and a host cell comprising such nucleic acid. The present invention also provides a composition comprising an antigen bearing target and such a fusion polypeptide, as well as a composition comprising a virus or a cell and such a fusion polypeptide. The present invention further relates to a method of modulating an immune response in an animal using such compositions.

Full Title Citation Front Re-	iew Classification Date Reference S	Sequences Attachments Claims KMC Draw Desi

4. Document ID: US 20040136983 A1

L47: Entry 4 of 26

File: PGPB

Jul 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040136983

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040136983 A1

TITLE: Methods for inhibiting angiogenesis by EphB receptor antagonists

PUBLICATION-DATE: July 15, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

RULE-47

Aguet, Michel

Lutry

CH

COUNTRY

h eb b g ee ef ec ef b

US-CL-CURRENT: <u>424/143.1</u>

#### ABSTRACT:

The present application describes methods of inhibiting or stimulating angiogenesis in a mammal comprising administering to the mammal an effective amount of an Eph receptor antagonist or agonist, respectively. Articles of manufacture for use in relation to these methods are also described.

Fuil	Titio	≘ Citation Front	Review	Classification	Date	Beterence	Sequences	Attachments	Claims	Konto	Draw Desc
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$\Box$	5.	Document ID:	US 200	040132634	<b>A</b> 1						

L47: Entry 5 of 26

File: PGPB

Jul 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040132634

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040132634 A1

TITLE: Compositions and methods for regulating the kinase domain of receptor tyrosine

kinases

PUBLICATION-DATE: July 8, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Sicheri, Frank Toronto CA Wybenga-Groot, Leanne Etobicoke CA

Pawson, Tony Toronto CA

US-CL-CURRENT: <u>514/1</u>; <u>435/194</u>, <u>702/19</u>

#### ABSTRACT:

The present invention relates to binding pockets of receptor tyrosine kinases (RTKs). The binding pockets may regulate the kinase domain of the receptor tyrosine kinases. In particular, the invention relates to a crystal comprising a binding pocket of a receptor tyrosine kinase that regulates the kinase domain of the receptor tyrosine kinase EphB2. The crystal may be useful for modeling and/or synthesizing mimetics of a binding pocket or ligands that associate with the binding pocket. Such mimetics or ligands may be capable of acting as modulators of receptor tyrosine kinase receptor activity, and they may be useful for treating, inhibiting, or preventing diseases modulated by such receptors. Methods are also provided for regulating the kinase domain of an RTK by changing a binding pocket of the RTK that regulates the kinase domain from an autoinhibited state to an active state or from an active state to an autoinhibited state.

Full Title Citation	Front Review Classific	ation Date Reference	Sequences Attachments	Claims   KMC   Draw Desi

6. Document ID: US 20040126793 A1

L47: Entry 6 of 26

File: PGPB

Jul 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040126793

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DOCUMENT-IDENTIFIER: US 20040126793 A1

TITLE: Lectin compositions and methods for modulating an immune response to an

antigen

PUBLICATION-DATE: July 1, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Segal, Andrew H.

Boston

MΑ

US

Young, Elihu

Sharon

MA

US

US-CL-CURRENT: 435/6; 435/320.1, 435/325, 435/419, 435/69.1, 530/370, 530/395,

536/23.5

#### ABSTRACT:

The present invention provides a fusion polypeptide which can bind to a cell surface binding moiety (e.g., a carbohydrate) and serve as a ligand for a cell surface polypeptide, as well as a vector comprising a nucleic acid encoding for such a fusion polypeptide, and a host cell comprising such nucleic acid. The present invention also provides a composition comprising an antigen bearing target and such a fusion polypeptide, as well as a composition comprising a virus or a cell and such a fusion polypeptide. The present invention further relates to a method of modulating an immune response in an animal using such compositions.

Full Title Citation Front	Review Classification Date Reference Sequences Attachments Claims KWC Draw De:	
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7. Document ID: US 20040126357 A1

L47: Entry 7 of 26

File: PGPB

Jul 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040126357

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040126357 A1

TITLE: Lectin compositions and methods for modulating an immune response to an

antigen

PUBLICATION-DATE: July 1, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Segal, Andrew H.

Young, Elihu

Boston Sharon MA MA US US

\_\_\_\_.

US-CL-CURRENT: 424/85.1; 424/185.1, 424/93.2

#### ABSTRACT:

The present invention provides a fusion polypeptide which can bind to a cell surface binding moiety (e.g., a carbohydrate) and serve as a ligand for a cell surface polypeptide, as well as a vector comprising a nucleic acid encoding for such a fusion polypeptide, and a host cell comprising such nucleic acid. The present invention also provides a composition comprising an antigen bearing target and such a fusion

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polypeptide, as well as a composition comprising a virus or a cell and such a fusion polypeptide. The present invention further relates to a method of modulating an immune response in an animal using such compositions.

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims Killion

8. Document ID: US 20040110150 A1

L47: Entry 8 of 26

File: PGPB

Jun 10, 2004

May 13, 2004

PGPUB-DOCUMENT-NUMBER: 20040110150

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040110150 A1

TITLE: Modulation of Ephrin-B2 expression

PUBLICATION-DATE: June 10, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Koller, Erich Carlsbad CA US Dobie, Kenneth W. Del Mar CAUS

US-CL-CURRENT: <u>435/6</u>; <u>514/44</u>, <u>536/23.2</u>

#### ABSTRACT:

Compounds, compositions and methods are provided for modulating the expression of Ephrin-B2. The compositions comprise oligonucleotides, targeted to nucleic acid encoding Ephrin-B2. Methods of using these compounds for modulation of Ephrin-B2 expression and for diagnosis and treatment of disease associated with expression of Ephrin-B2 are provided.

Full Title Citation	Front Review Classific.	ation Date Reference	Sequences Attachments Claims	1008C Drawn Desc
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File: PGPB

9. Document ID: US 20040091486 A1

PGPUB-DOCUMENT-NUMBER: 20040091486

PGPUB-FILING-TYPE: new

L47: Entry 9 of 26

DOCUMENT-IDENTIFIER: US 20040091486 A1

TITLE: EphA2 agonistic monoclonal antibodies and methods of use thereof

PUBLICATION-DATE: May 13, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Kinch, Michael S. Laytonsville MD US Carles-Kinch, Kelly Laytonsville MD US Stewart, Jane C. West Lafayette ΙN US

h e b b g ee e f ef e c b e

Mar 4, 2004

US-CL-CURRENT: 424/155.1

#### ABSTRACT:

The present invention relates to methods and compositions designed for the treatment, management, or prevention of cancer, particularly, metastatic cancer. The methods of the invention comprise the administration of an effective amount of one or more antibodies that bind to and agonize EphA2, thereby increasing EphA2 phosphorylation and decreasing EphA2 levels in cells which EphA2 has been agonized. The invention also encompasses antibodies that preferentially bind an EphA2 epitope exposed on cancer cells but not non-cancer cells. The invention also provides pharmaceutical compositions comprising one or more EphA2 antibodies of the invention either alone or in combination with one or more other agents useful for cancer therapy.

Full Title Citation Front Review Classification D	ate Reference Sequences Atta	chments Claims KMC Dram Desc
	***************************************	······
10. Document ID: US 20040072747 A	<b>A</b> 1	
L47: Entry 10 of 26	File: PGPB	Apr 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040072747

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040072747 A1

TITLE: Novel member of the epha receptor family

PUBLICATION-DATE: April 15, 2004

INVENTOR-INFORMATION:

NAME CITY

STATE COUNTRY RULE-47

Hock, Bjoern Maintal DE

Duecker, Klaus Darmstadt DE

US-CL-CURRENT: 514/12; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.5

## ABSTRACT:

EphA9 polypeptides and polynucleotides and methods for producing such polypeptides by recombinant techniques are disclosed. Also disclosed are methods for utilizing EphA9 polypeptides and polynucleotides in diagnostic assays.

Full	Title Citation Front Review Classification Date	Peterange   Seduences	Attachments   Claims   Kodt   Draw Desi
Г	11. Document ID: US 20040044181 A1	·····	······································
L47:	Entry 11 of 26	File: PGPB	Mar 4 2004

File: PGPB

PGPUB-DOCUMENT-NUMBER: 20040044181

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040044181 A1

TITLE: Novel nucleic acids and polypeptides

PUBLICATION-DATE: March 4, 2004

e b h geeef ef e c e

INVENTOR-	TNFORMATTON.

NAME	CITY	STATE	COUNTRY	RULE-47
Tang, Y. Tom	San Jose	CA	US	
Liu, Chenghua	San Jose	CA	US	
Asundi, Vinod	Foster City	CA	US	
Wehrman, Tom	Stanford	CA	US	•
Ren, Feiyan	Cupertino	CA	US	
Zhou, Ping	Cupertino	CA	US	
Zhao, Qing A.	San Jose	CA	US	
Drmanac, Radoje T.	Palo Alto	CA	US	
Zhang, Jie	Campbell	CA	US	
Xue, Aidong	Sunnyvale	CA	US	
Wang, Jian-Rui	Cupertino	CA	US	
Wang, Dunrui	Poway	CA	US	

US-CL-CURRENT: 530/350; 435/320.1, 435/325, 435/69.1, 536/23.5

#### ABSTRACT:

The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

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12. Document ID: US 20040033	3971 Al	

PGPUB-DOCUMENT-NUMBER: 20040033971

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040033971 A1

TITLE: Polypeptides and nucleic acids encoding same

PUBLICATION-DATE: February 19, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gangolli, Esha A.	Madison	CT	US	11022 17
Patturajan, Meera	Branford	CT	US	
Vernet, Corine A.M.	Branford	CT	US	
Malyankar, Uriel M.	Branford	CT	US	
Kekuda, Ramesh	Norwalk	CT	US	
Stone, David J.	Guilford	CT	บร	
Anderson, David	Branford	CT	US	
Shimkets, Richard A.	Guilford	CT	US	
Burgess, Catherine E.	Wethersfield	СT	US	
Zerhusen, Bryan D.	Branford	CT	US	
Liu, Xiaohong	Branford	СТ	US	
Spytek, Kimberly A.	New Haven	CT	US	
Casman, Stacie J.	North Haven	CT	US	

## Record List Display

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Boldog, Ference L.	North Haven	CT	US
Smithson, Glennda	Guilford	CT	US
Li, Li	Branford	CT	US
Ji, Weizhen	Branford	CT	US
MacDougall, John R.	Hamden	CT	US

 $\text{US-CL-CURRENT: } \underline{514/44}; \ \underline{435/320.1}, \ \underline{435/325}, \ \underline{435/6}, \ \underline{435/7.1}, \ \underline{514/2}, \ \underline{530/387.1}, \ \underline{536/23.1}$ 

#### ABSTRACT:

Disclosed herein are nucleic acid sequences that encode novel polypeptides. Also disclosed are polypeptides encoded by these nucleic acid sequences, and antibodies, which immunospecifically-bind to the polypeptide, as well as derivatives, variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention farther discloses therapeutic, diagnostic and research methods for diagnosis, treatment, and prevention of disorders involving any one of these novel human nucleic acids and proteins.

Full Title Citation Front Review Classification	Date Reference Sequences Atta	chiments Claims KMC Diawa Desc
T: 13 Dogument ID: US 2004002966		
13. Document ID: US 2004002868	File: PGPB	Feb 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040028685

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040028685 A1

TITLE: EphA2 monoclonal antibodies and methods of use thereof

PUBLICATION-DATE: February 12, 2004

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Kinch, Michael S.	Laytonsville	MD	US	
Carles-Kinch, Kelly	Laytonsville	MD	US	
Kiener, Peter	Potomac	MD	US	
Langermann, Solomon	Baltimore	MD	US	

US-CL-CURRENT: <u>424/155</u>.1

#### ABSTRACT:

The present invention relates to methods and compositions designed for the treatment, management, or prevention of cancer, particularly, metastatic cancer. In one embodiment, the methods of the invention comprise the administration of an effective amount of an antibody that binds to EphA2 and agonizes EphA2, thereby increasing EphA2 phosphorylation and decreasing EphA2 levels. In other embodiments, the methods of the invention comprise the administration of an effective amount of an antibody that binds to EphA2 and inhibits cancer cell colony formation in soft agar, inhibits tubular network formation in three-dimensional basement membrane or extracellular matrix preparation, preferentially binds to an EphA2 epitope that is exposed on cancer cells but not non-cancer cells, and/or has a low K.sub.off, thereby, inhibiting tumor cell growth and/or metastasis. The invention also provides pharmaceutical compositions comprising one or more EphA2 antibodies of the invention

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either alone or in combination with one or more other agents useful for cancer therapy.

Full Title Citation Front Review Classification	i Date Reference Sequences Attac	iments Claims Koot Draw Desi
☐ 14. Document ID: US 200302074	47 A1	
L47: Entry 14 of 26	File: PGPB	Nov 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030207447

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030207447 A1

TITLE: Artery- and vein-specific proteins and uses therefor

PUBLICATION-DATE: November 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Hai U.	Pasadena	CA	US	
Chen, Zhoufeng	Pasadena	CA	US	
Anderson, David J.	Altadena	CA	US	

US-CL-CURRENT: 435/325; 435/320.1, 435/6, 530/350, 536/23.5

#### ABSTRACT:

Arterial and venous endothelial cells are molecularly distinct from the earliest stages of angiogenesis. This distinction is revealed by expression on arterial cells of a transmembrane ligand, called EphrinB2 whose receptor EphB4 is expressed on venous cells. Targeted disruption of the EphrinB2 gene prevents the remodeling of veins from a capillary plexus into properly branched structures. Moreover, it also disrupts the remodeling of arteries, suggesting that reciprocal interactions between pre-specified arterial and venous endothelial cells are necessary for angiogenesis.

Full Title Citation Front Review Classin	iostion Date Reference Sequences Atlan	chaments Claims Koot Drama Des
15. Document ID: US 200301		·
L47: Entry 15 of 26	File: PGPB	Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157712

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157712 A1

TITLE: Methods for determining cell responses through EphB receptors

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Daniel, Thomas O.	Nashville	TN	US	_
Stein, Elke	San Francisco	CA	US	

h eb b g ee ef ec ef b e

US-CL-CURRENT: 435/366; 435/368

#### ABSTRACT:

The present invention provides a method for initiating, promoting and/or directing cell attachment to a matrix or to another cell, comprising contacting an EphB receptor-expressing cell with a tetrameric EphB receptor-binding ligand, whereby binding of the tetrameric ligand promotes multimerization of the EphB receptor, thereby initiating, promoting and directing cell attachment to a matrix or to another cell. Also provided is a method for promoting angiogenesis, comprising contacting EphB receptor-expressing cells which are associated with angiogenesis with a multimeric EphB receptor-binding ligand, whereby binding of the tetrameric ligand promotes multimerization of the EphB receptor, thereby promoting angiogenesis.

Full Title Citation Front Review Classification Date	Reference   Sequences   Attachments   C	laims KMC Dram Desc
16. Document ID: US 20030113328 A1		
L47: Entry 16 of 26	File: PGPB	Jun 19, 2003

PGPUB-DOCUMENT-NUMBER: 20030113328

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030113328 A1

TITLE: Methods of modulation of the immune system

PUBLICATION-DATE: June 19, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Roifman, Chaim M	North York		CA	
Freywald, Andrew	Thornhill		CA	
Sharfe, Nigel	Toronto		CA	
Grunberger, Thomas	Toronto		CA	
Gruebaum, Eyal	Toronto		CA	

US-CL-CURRENT: 424/146.1; 424/185.1, 435/7.2

#### ABSTRACT:

Manipulation of the EphB6 receptor and its active Eph partners allow for regulation of T cell responses, including TCR signalling, T cell proliferation, and induction of T cell death. Methods of modulating EphB6 are described as well as various therapeutic applications.

Full Title Citation Front Review Classification	Date   Reference   Sequences   Attac	imento Claims KMC Draw Desc
☐ 17. Document ID: US 200300825		
L47: Entry 17 of 26	File: PGPB	May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030082511

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030082511 A1

TITLE: Identification of modulatory molecules using inducible promoters

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Brown, Steven J. San Diego CA US
Dunnington, Damien J. San Diego CA US
Clark, Imran San Diego CA US

US-CL-CURRENT: 435/4; 435/6

#### ABSTRACT:

Methods for identifying an ion channel modulator, a target membrane receptor modulator molecule, and other modulatory molecules are disclosed, as well as cells and vectors for use in those methods. A polynucleotide encoding target is provided in a cell under control of an inducible promoter, and candidate modulatory molecules are contacted with the cell after induction of the promoter to ascertain whether a change in a measurable physiological parameter occurs as a result of the candidate modulatory molecule.

Full Title Citation Front Review Classification Date Reference Sequences Attachmen	nts Claims KNAC Draw Des

# 18. Document ID: US 20030036095 A1

L47: Entry 18 of 26 File: PGPB Feb 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030036095

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030036095 A1

TITLE: Highly sensitive proteomic analysis methods, and kits and systems for

practicing the same

PUBLICATION-DATE: February 20, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Tchaga, Grigoriy S. Newark CA US

US-CL-CURRENT: 435/7.1; 427/2.11, 435/7.9

## ABSTRACT:

Methods of determining whether a sample includes one or more analytes, particularly proteinaceous analytes, of interest are provided. In the subject methods, an array of binding agents, where each binding agent includes an epitope binding domain of an antibody, is contacted with the sample. In many embodiments, contact occurs in the presence of a metal ion chelating polysaccharide, e.g., a pectin. Following contact, the presence of binding complexes on the array surface are detected and the resultant data is employed to determine whether the sample includes the one or more analytes of interest. Also provided are kits, systems and other compositions of matter for practicing the subject methods. The subject methods and compositions find use in a variety of applications, including proteomic applications such as protein expression analysis, e.g., differential protein expression profiling.

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims Roll Draw Des

19. Document ID: US 20030008327 A1

L47: Entry 19 of 26

File: PGPB

Jan 9, 2003

PGPUB-DOCUMENT-NUMBER: 20030008327

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030008327 A1

TITLE: Methods and systems for identifying kinases, phosphatases, and substrates

thereof

PUBLICATION-DATE: January 9, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Sep 26, 2002

RULE-47

Ornatskaia, Olga

Richmond Hill

CA

US-CL-CURRENT: 435/7.1; 702/19

ABSTRACT:

The instant invention provides methods to determine the phosphorylaion status or sulfation state of a polypeptide or a cell using mass spectrometry, especially ICP-MS. The invention also provides methods for identifying a substrate for a kinase using mass spectrometry. The invention further provides business method to conduct a drug discovery business. The invention further provides methods to determine the kinase activity of a peptide (such as a kinase), or the phosphatase activity of a peptide (such as a phosphatase). The invention further provides methods for identifying an inhibitor or an agonist of the kinase activity of a kinase, or an inhibitor or an agonist of the phosphatase activity of a phosphatase.

Full	Title	Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw Desi
		Document ID: US 20020136726 A1

File: PGPB

L47: Entry 20 of 26

PGPUB-DOCUMENT-NUMBER: 20020136726 PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020136726 A1

TITLE: Artery smooth muscle- and vein smooth muscle-specific proteins and uses

therefor

PUBLICATION-DATE: September 26, 2002

INVENTOR-INFORMATION:

NAME Anderson, David J.

Garcia-Cardena, Guillermo

CITY Atladena STATE COUNTRY US

e

Boston

CA MΑ US

h e b b g ee e f e c ef h Gimbrone, Michael A. JR. Wang, Hai U.

Jamaica Plain Eldorado Hills MA US

US-CL-CURRENT: 424/146.1

#### ABSTRACT:

Arterial and venous smooth muscle cells are molecularly distinct from the earliest stages of angiogenesis through to adulthood. This distinction is revealed by expression on arterial cells (e.g., arterial endothelial cells, arterial smooth muscle cells) of a transmembrane ligand, called EphrinB2 whose receptor EphB4 is expressed on venous cells. Targeted disruption of the EphrinB2 gene prevents the remodeling of veins from a capillary plexus into properly branched structures. Moreover, it also disrupts the remodeling of arteries, suggesting that reciprocal interactions between pre-specified arterial and venous cells are necessary for angiogenesis. Expression of EphrinB2 in arterial cells (e.g., arterial endothelial cells, arterial smooth muscle cells) can be used to advantage in methods for targeting agents and/or encoded polypeptides to arterial smooth muscle cells, altering angiogenesis, assessing the effect of agents on arterial smooth muscle cells, identifying arterial smooth muscle cells, isolating arterial smooth muscle cells and production of artificial vessels, for example.

Full	Title	Citation	Front Review	w Classification	Date Reference	Sequences	Attachments (	Diains 1000C	Drawn Desi
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## 21. Document ID: US 20010024650 A1

L47: Entry 21 of 26

File: PGPB

Sep 27, 2001

PGPUB-DOCUMENT-NUMBER: 20010024650

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010024650 A1

TITLE: Artery - and vein-specific proteins and uses therefor

PUBLICATION-DATE: September 27, 2001

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Wang, Hai U. Pasadena CA Chen, Zhoufeng Pasadena CA US Anderson, David J. Altadena CAUS

US-CL-CURRENT: 424/185.1; 435/325, 435/6, 435/7.1, 435/7.2, 530/387.1, 536/23.5, 800/13

#### ABSTRACT:

Arterial and venous endothelial cells are molecularly distinct from the earliest stages of angiogenesis. This distinction is revealed by expression on arterial cells of a transmembrane ligand, called EphrinB2 whose receptor EphB4 is expressed on venous cells. Targeted disruption of the EphrinB2 gene prevents the remodeling of veins from a capillary plexus into properly branched structures. Moreover, it also disrupts the remodeling of arteries, suggesting that reciprocal interactions between pre-specified arterial and venous endothelial cells are necessary for angiogenesis.

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Full Title Citation Front Review Classification Data Reference Sequences Attachments Claims Mode Draw Desc

22. Document ID: US 6579683 B2

L47: Entry 22 of 26

File: USPT

Jun 17, 2003

US-PAT-NO: 6579683

DOCUMENT-IDENTIFIER: US 6579683 B2

TITLE: Artery- and vein-specific proteins and uses therefor

DATE-ISSUED: June 17, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Wang; Hai U. Pasadena CA Chen; Zhoufeng Pasadena CA Anderson; David J. Altadena CA

US-CL-CURRENT: 435/7.21; 435/325, 435/7.23, 530/350, 530/388.1, 530/389.1

#### ABSTRACT:

Arterial and venous endothelial cells are molecularly distinct from the earliest stages of angiogenesis. This distinction is revealed by expression on arterial cells of a transmembrane ligand, called EphrinB2 whose receptor EphB4 is expressed on venous cells. Targeted disruption of the EphrinB2 gene prevents the remodeling of veins from a capillary plexus into properly branched structures. Moreover, it also disrupts the remodeling of arteries, suggesting that reciprocal interactions between pre-specified arterial and venous endothelial cells are necessary for angiogenesis.

42 Claims, 3 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 1

Full	Title Citation	Front Review Class	ification   Date	Saturation	***	4440
	<del></del>			- Neterence	Claims 8	OMC   Drawn Desc

# 23. Document ID: US 6555321 B1

L47: Entry 23 of 26

File: USPT

Apr 29, 2003

US-PAT-NO: 6555321

DOCUMENT-IDENTIFIER: US 6555321 B1

TITLE: Methods for determining cell responses through EphB receptors

DATE-ISSUED: April 29, 2003

INVENTOR-INFORMATION:

NAME CITY ZIP CODE STATE COUNTRY

Daniel; Thomas O. Nashville TN Stein; Elke San Francisco CA

US-CL-CURRENT: 435/7.1; 435/334, 435/7.2, 435/7.21, 435/7.8

h e b b g ee e f ef e c b е ABSTRACT:

The present invention provides methods for screening an EphB receptor or an EphB receptor-binding ligand for the ability to promote a selected biological activity when in multimeric form. The invention also provides methods for initiating, promoting, directing, or inhibiting biological activities that involve EphB receptors and/or EphB receptor-binding ligands. The invention further provides compositions that can be used in the foregoing methods.

8 Claims, 9 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full Title Citation Front Review Classification Date Reference Claims 1000C Draw Des-

24. Document ID: WO 200244732 A2, EP 1221618 A1, AU 200221906 A

L47: Entry 24 of 26

File: DWPI

Jun 6, 2002

DERWENT-ACC-NO: 2002-557553

DERWENT-WEEK: 200270

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TITLE: Diagnosing presence of or predisposition for allergic disease such as allergic asthma, atopic dermatitis, utilizes expression profiling images of activated

lymphocytes or monocytes/macrophages

INVENTOR: BLASER, K; SCHMIDT-WEBER, C; WOHLFAHRT, J

PRIORITY-DATA: 2000EP-0126117 (November 29, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200244732 A2	June 6, 2002	E	061	G01N033/569
EP 1221618 A1	July 10, 2002	E	000	G01N033/569
AU 200221906 A	June 11, 2002		000	G01N033/569

INT-CL (IPC):  $\underline{\text{C12}}$   $\underline{\text{Q}}$   $\underline{\text{1/68}}$ ;  $\underline{\text{G01}}$   $\underline{\text{N}}$   $\underline{\text{33/50}}$ ;  $\underline{\text{G01}}$   $\underline{\text{N}}$   $\underline{\text{33/569}}$ 

ABSTRACTED-PUB-NO: WO 200244732A

BASIC-ABSTRACT:

NOVELTY - Diagnosing (M1) the presence of or predisposition for allergic diseases using expression profiling images (EPI), involves contacting ligands such as mRNA isolated from activated lymphocytes with set of immobilized receptors which represent set of genes coding for gene products involved with presence of specific allergic diseases to be diagnosed, and creating an EPI, which allows for the diagnosis of the allergic disease.

DETAILED DESCRIPTION - (M1) involves:

in vitro activating lymphocytes or monocytes/macrophages obtained from whole blood of an individual to be diagnosed for the presence of or predisposition for specific allergic diseases;

(a) providing ligands such as mRNA, oligonucleotides, cDNAs, proteins or their functional fragments, isolated or generated from the lymphocytes or monocytes/macrophages;

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- (b) contacting the ligands with a set of immobilized receptors such as oligonucleotide or cDNA probes and antibodies or their functional fragments, specifically representing a respective set of genes coding for gene products such as Epcam, DNAM, Endoglin, Flt-3/Flk-2 R, c-met, MPL R, MSP R, IL-18 R, Tie-2, fractalkine, HCC-4, I-309, Agouti-related transcript, PREF-1, SARP-3, Urokinase R, MMP-15, EBAF, TRAIL R2, amphiregulin, betacellulin, Cripto, erbB1, erbB3, TGFalpha, ephrin-A1, ephrin-A2, EphA1, EphA2, EphA3, EphA4, EphB4, EphB6, BDNF, CNTF, GDNF, GFR alpha 1, GFR alpha 2, Neuropilin-1, NGF R, ICAM-1, Angiogenin, VEGF, VEGF-8, VEGF-D, CD34, SLAM, eolakin-2, IL-8, MIP-1d, MCP-4, MDC, midkine, TARC, Flt-3 ligand, G-CSF, GM-CSF, c-kit ligand, leptin, oncostatin M, osteopontin, PP14, SARP-1, follistatin, IGF binding protein, Epo R, G-CSF-R, IL-11 Ra, IL-15 Ra, eNOS, MMP-12, inhibin A (a subunit), 4-1BB, CD30, FasL, TRAIL R2, GM-CSF Rb, IFN-a/b Rb, IGF-I R, c-kit, M-CSF R, FGF acidic, FGF-3, FGF-4, FGF R2, FGF R3, integrin-a5, IL2-IL7, IL-10, IL-11, IL-1 RII, IL-2 Ra, IL-2 Rb, IL-2Rg, GADPH, their allelic variants or mutants, involved with the presence of or predisposition for specific allergic diseases to be diagnosed, and qualitatively and quantitatively detecting the presence of bound ligand/receptor complexes to obtain an EPI being representative for the current status of the individual to be diagnosed;
- (c) comparing the EPI obtained with the EPI(s) of normal individuals and/or with the EPI(s) of individuals having a predisposition for or suffering from specific allergic disease(s) to be diagnosed; and
- (d) excluding or diagnosing suspected allergic disease(s) or a predisposition on the basis of the results of the comparison obtained.

INDEPENDENT CLAIMS are also included for the following:

- (1) screening assay (M2) for evaluating the allergenic and/or anti-allergic potential of analyte substances using EPIs, by in vitro activating lymphocytes or monocytes/macrophages, preferably using standardized to represent a baseline EPI characteristic for a normal's status, incubating the activated lymphocytes or monocytes/macrophages with an analyte substances to be evaluated for its their allergenic and/or anti-allergic potential, carrying out steps (c) and (d) as above, and evaluating the allergenic and/or anti-allergic potential of the analyte substances by comparing the EPI obtained with the EPI generated from normal individual, or preferably by directly analyzing the EPI obtained; and
- (2) diagnostic tool suitable for use in (M1) or (M2), comprising on its surface a set of immobilized receptors as above.

USE - (M1) is useful for diagnosing the presence of or predisposition for allergic diseases such as allergic asthma, allergic rhinitis, food allergies, anaphylactic shock risk, atopic dermatitis, immediate-type allergic reaction and insect allergies. (M2) is useful for evaluating the allergenic and/or anti-allergic potential of analyte substances (claimed).

Full Title Citation Front Review Classification Date Reference Claims KNAC Draw, Desc

# 25. Document ID: WO 200200926 A2, AU 200189617 A, EP 1297185 A2

L47: Entry 25 of 26

File: DWPI

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Jan 3, 2002

DERWENT-ACC-NO: 2002-147896

DERWENT-WEEK: 200408

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TITLE: Oligonucleotide for diagnosis and therapy of diseases associated with signal transduction e.g. cancer, comprises chemically modified genomic sequences of genes associated with signal transduction

INVENTOR: BERLIN, K; OLEK, A ; PIEPENBROCK, C

PRIORITY-DATA: 2000DE-1043826 (September 1, 2000), 2000DE-1032529 (June 30, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200200926 A2	January 3, 2002	E	024	C120001/68
<u>AU 200189617 A</u>	January 8, 2002		000	C12Q001/68
EP 1297185 A2	April 2, 2003	E	000	C120001/68

INT-CL (IPC): A61 K 31/70; B01 J 19/00; C12 N 15/11; C12 Q 1/68; G01 N 33/50

ABSTRACTED-PUB-NO: WO 200200926A

BASIC-ABSTRACT:

NOVELTY - A nucleic acid (I) comprising a sequence of at least 18 bases of a segment of chemically pretreated DNA of genes (G1) associated with signal transduction, is new.

DETAILED DESCRIPTION - A nucleic acid (I) comprises a sequence of at least 18 bases of a segment of chemically pretreated DNA of G1 associated with signal transduction according to one of the:

- (a) sequences (S1) taken from 388 sequences as defined in the specification, and its complementary sequences; and/or
- (b) sequences (S2) taken from genes CD20 DYRK4 (Y09305), EPHA5 (L36611), NEK2 (Z29067), PCTK3 (X66362), PRKAR1B (M65066), PRKM3 (M84490) (Z11696), PRKMK2 (L11285), SH3D1B (U61167), ZAP70 (L05148), PIK3CA (NM-006218), ADRBK1 (NM-001619), AKT1 (NM-005163), AKT2 (NM-001626), ARHA (NM-001664), BMPR2 (NM-001204), CHN1 (NM-001822), CHN2 (NM-004067), CLK3 (NM-003992), CNK (NM-004073), CSK (NM-004383), CSNK1D (NM-001893), CTNNB1 (NM-001904), CTNND2 (NM-001332), DGKG (NM-001346), DRG2 (NM-001388), DVL3 (NM-004423), DYRK3 (NM-003582), EFNA1 (NM-004428), <u>EPHA4</u> (NM-004438), EPHB3 (NM-004443), ERBB4 (NM-005235), GRB2 (NM-002086), HCK (NM-002110), AATK (NM-004920), MADH3 (NM-005902), MAPKAPK2 (NM-004759), MAP3K3 (NM-002401), ROR1 (NM-005012), ROR2 (NM-004560), PDE4B (NM-002600), PDPK1 (NM-002613), B56 (NM-006245), PRKACG (NM-002732), PRKAG1 (NM-002733), PRKAR1A (NM-002734), PRKCA (NM-002737), PRKCG (NM-002739), PRKCZ (NM-002744), PRKG1 (NM-006258), MAPK1 (NM-002745), MAPK10 (NM-002753), MAPK13 (NM-005607), PTK2B (NM-004103), RGS7 (NM-002924), RHOK (NM-002929), RYK (NM-002958), SFN (NM-006142), STAT1 (NM-007315), STAT12 (NM-003877), STK3 (NM-006281), TIAM1 (NM-003253), TTK (NM-003318), TYRO3 (NM-006293), UBE1L (NM-003335), YES1 (NM-005433), MAP3K12 (NM-006301) and their complementary sequences.

INDEPENDENT CLAIMS are also included for the following:

- (1) an oligomer (II) especially an oligonucleotide or peptide nucleic acid (PNA)-oligomer, comprising at least one base sequence of at least 9 nucleotides which hybridizes to or is identical to a chemically pretreated DNA of G1;
- (2) a set of oligomers (III) comprising at least two (II);
- (3) use of a set of oligomer probes (IV) comprising at least 10 of (III) for detecting the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) in a chemically pretreated genomic DNA of G1;
- (4) manufacturing (M1) an arrangement of different oligomers (array) fixed to a carrier material for analyzing diseases associated with the methylation state of the CpG dinucleotide of one of the sequences of G1, where at least one oligomer is coupled to solid phase;
- (5) an arrangement (IV) of different oligomers (array) obtainable by M1;

(6) a DNA- and/or PNA- array for analyzing diseases associated with methylation state of genes comprising (I); and

(7) a kit (V) comprising a bisulfite (=disulfite, hydrogen sulfite) reagent as well as (II).

ACTIVITY - Antitumor; cytostatic.

MECHANISM OF ACTION - Gene therapy. No biological data is given.

USE - A set of oligomers (III) are useful as primer oligonucleotides for the amplification of DNA sequences of G1, where at least an oligonucleotide is bound to a solid surface. (III) or an arrangement of different oligomers (IV) is useful for ascertaining genetic and/or epigenetic parameters for the diagnosis and/or therapy of existing diseases or the predisposition to specific diseases by:

- (a) analyzing cytosine methylations, in a genomic DNA sample subjected to chemical treatment preferably by utilizing a solution of bisulfite, hydrogen sulfite or disulfite, where cytosine bases which are unmethylated at the 5-position are converted to uracil or another base which is dissimilar to cytosine in terms of hybridization behavior;
- (b) more than ten different fragments of 100 2000 base pairs (bp) which are chemically pretreated genomic DNA are amplified using (III) preferably utilizing heat-resistant DNA polymerase in one reaction vessel by a polymerase chain reaction (PCR), with amplificates carrying a detectable label preferably fluorescent labels or radionuclides, or detachable molecule fragments having a typical mass which are detected in the mass spectrometer, where the fragments have a single positive or negative net charge for better detectability in the mass spectrometer, and the detection is performed and visualized by matrix assisted laser desorption/ionization mass spectrometry (MALDI) or using electron spray mass spectrometry (ESI); and
- (c) the amplificates are then hybridized to (III) or to (IV) and then the hybridized amplificates are subsequently detected, where the genomic DNA is obtained from cells or cellular components which contain DNA, sources of DNA comprising, for e.g. cell lines, biopsies, blood, sputum, stool, urine, cerebral-spinal fluid, tissue embedded in paraffin such as tissue from eyes, intestine, kidney, brain, heart, prostate, lung, breast or liver, histologic object slides, and all their possible combinations.
- (I), an oligomer (II), (III), (IV) or a kit (V) is useful for diagnosis and therapy of diseases (all claimed) such as solid tumors and cancer.

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Des

# 26. Document ID: WO 200037500 A1, AU 200017642 A, EP 1141016 A1

L47: Entry 26 of 26

File: DWPI

Jun 29, 2000

DERWENT-ACC-NO: 2000-442645

DERWENT-WEEK: 200038

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TITLE: 3-D structure of sterile alpha motif domain used as model for determining 3-D structures of additional native or mutated SAM domain with unknown structure and structures of co-crystals of SAM domain with modulators

INVENTOR: SICHERI, F; STAPLETON, D

PRIORITY-DATA: 1998US-112929P (December 18, 1998)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200037500 A1	June 29, 2000	E	072	C07K014/705
AU 200017642 A	July 12, 2000		000	C07K014/705
EP 1141016 A1	October 10, 2001	E	000	C07K014/705

INT-CL (IPC): A61 K 38/17; A61 P 25/00; C07 K 14/47; C07 K 14/705; G06 F 17/50

ABSTRACTED-PUB-NO: WO 200037500A

BASIC-ABSTRACT:

NOVELTY - A purified three dimensional structure of a polypeptide (I) corresponding to one or more sterile alpha motif (SAM) domains.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- a purified crystalline form (CF) of (I);
- (2) forming a CF of (I);
- (3) a potential modulator (II) of a function of a SAM domain of an Eph (Erythropoietin producing human hepatocellular carcinomas cell line) receptor identified using CF; and
- (4) a peptide (III) which mediates SAM domain function comprises VVSV, SAVVSV, FSAVV, FSAVVSV, FSAVVSV, FSAVVSV, FSAVVSVGDWL, FNTV, FNTVDE, FNTVDEWL, TSFNTVDEWL, TSFNTV, YTSFNTV, RSEV, RSEVLG, RSEVLGVD, VPFRSEV or VPFRSEVLGW or has a formula I or II:
- (I) X-X1-X2-X3-X4-X5-X6;
- (II) X7-X8-X9-X10-X11-X12-X13-X14-X15-X16.
- X = defined in DEFINITIONS: Full Definitions field

ACTIVITY - Cytostatic; immunosuppressive; vulnerary; neuroprotective; nootropic; antiparkinsonian; cerebroprotective, antiarthritic, antiatherosclerotic.

MECHANISM OF ACTION - Eph (Erythropoietin producing human hepatocellular carcinomas cell line) receptor SAM domain modulators (claimed).

USE - The structural coordinates of a SAM domain or CF of (I) can be used as a model for determining the three dimensional structures of polypeptides with SAM domains of unknown structure. They are also used for identifying (M1) a potential modulator of a SAM domain of a Eph (Erythropoietin producing human hepatocellular carcinomas cell line) receptor function which involves docking a computer representation of a structure of a compound with the computer representation of a structure of one or more SAM domains of an Eph receptor. (II) identified by the above method or a CF, can be used for treating a disease associated with inappropriate activity of SAM domain of an Eph receptor in cellular organism, such that a SAM domain function is activated or inhibitor to treat a cell proliferative disease such as cancer, angiogenesis, atherosclerosis, arthritis and diseases associated with the nervous system (claimed). The knowledge of the three dimensional structure of a SAM domain, in particular the EphA4 SAM domain enables us to identify homologues. The structure coordinates of a SAM domain or CF of (I) can be used for identifying additional native or mutated SAM domains with unknown structure, as well as the structures of co-crystals of SAM domains with compounds such as modulators. The structure coordinates and models of a SAM domain three dimensional can also be used to determine solution-based structures of native or mutant SAM domains. The structural coordinates of a SAM domain structure may be applied to nuclear magnetic resonance (NMR) data to determine the three dimensional structures of polypeptides. The rational design and identification of modulators of SAM domains can be accomplished by utilizing the atomic structural coordinates that define SAM domain's three dimensional structure. The new peptides

b

(III) may be used to identify lead compounds for drug development. A comparison of the structure of peptides similar in sequence but differing in the biological activities they elicit in target molecules can provide information about the structure-activity relationship (SAR) of the target. Information obtained from the examination of SAR can be used to design either modified peptides or other small